

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

**SIEMENS GAMESA RENEWABLE  
ENERGY A/S,**

Plaintiff,

v.

**GENERAL ELECTRIC COMPANY,**

Defendant.

Case No. 1:21-cv-10216-WGY

**DEFENDANT GENERAL ELECTRIC COMPANY'S  
CLAIM CONSTRUCTION BRIEF**

## I. INTRODUCTION

GE has identified several key disputes that turn on claim construction. These disputes are questions of law for the Court’s resolution, rather than questions of fact for the jury. *O2 Micro Int’l v. Beyond Innovation Tech.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (“When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.”). SGRE has, by contrast, proposed that the Court decline to construe *any* of the disputed claim terms.

SGRE’s approach would improperly send disputed questions of law to the jury. *Id.* at 1361 (“[T]he ‘ordinary’ meaning of a term does not resolve the parties’ dispute, and claim construction requires the court to determine what claim scope is appropriate in the context of the patents-in-suit.”). GE, by contrast, has proposed constructions of the disputed claim terms that resolve the parties’ disputes in a way that is faithful to the patents’ claim language and specifications. In addition, for some claims, GE has identified claim terms that cannot be understood “with reasonable certainty,” rendering that subset of claims indefinite. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

GE respectfully requests that the Court adopt its proposed constructions.

## II. BACKGROUND

Both of the patents at issue involve direct-drive wind turbine generators<sup>1</sup> with a particular set of components, in a specific configuration.

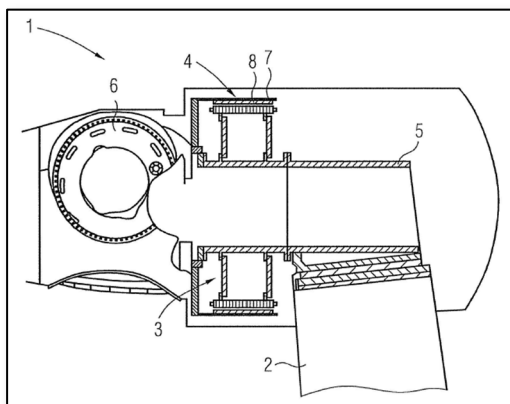
### A. The ’776 Patent

U.S. Patent No. 8,575,776 (the “’776 patent”) is directed to a generator having a part known as a “stator,” which is a stationary component of a generator that supports the

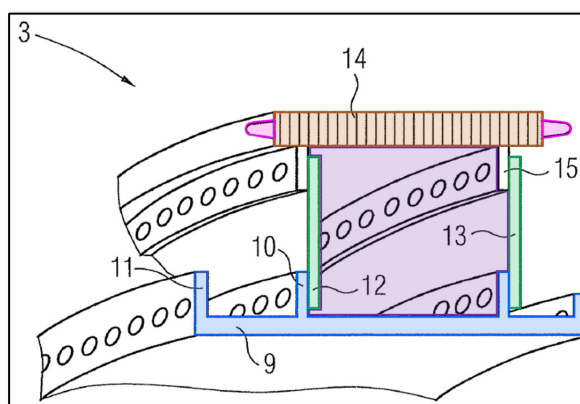
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<sup>1</sup> A “direct drive” wind turbine does not have a gearbox between the rotating blades and the generator, so that the wind drives the wind rotor and the rotor within the generator together as a unit, without any intermediate gears.

electromagnetic coils in a wind turbine. When a rotating component with magnets—called a “rotor”—rotates around the stator, electricity is generated in the coils. Figure 1 of the ’776 patent (below) depicts a sectional view of a generator having a stator labeled “3.” ’776 patent 2:41–47. Although only a sectional view is shown in the figure, the stator is ring-shaped, encircling the shaft “5” (Fig. 1) that runs through the turbine. Figure 2 (annotated in color) also depicts a sectional view of the stator:



’776 patent Fig. 1



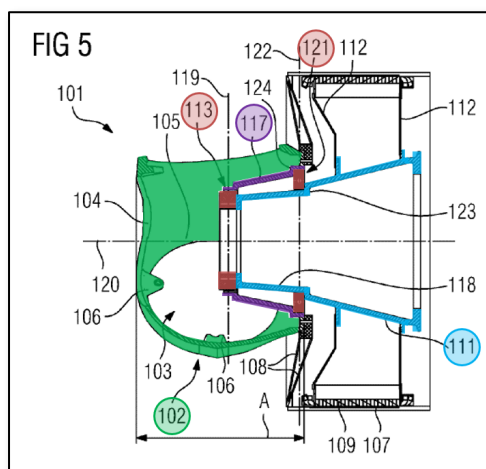
’776 patent Fig. 2 (color annotations added)

Claim 1 of the ’776 patent is directed to a wind turbine with a generator having a stator “comprising”: (1) “stator coils,” (2) “a circular inner base structure,” which is depicted in Figure 2 as element 9; (3) “a circular outer base structure on which the stator coils are mounted,” element 14; (4) “a plurality of connection structures 12, 13, each of the plurality of connection structures separated axially and radially extending between the circular inner base structure and the circular outer base structure forming a hollow chamber between the circular inner base structure, outer base structure and plurality of connection structures,” elements 12 and 13; (5) “wherein the hollow chamber is ventilated”; and (6) “wherein the plurality of connection structures [12, 13] are connected to the circular inner base structure [9] and connected to the

circular outer base structure [14].” *Id.* claim 1, 2:49-3:10. All of the other ’776 patent claims (claims 2-7) depend from claim 1.

## B. The ’413 Patent

U.S. Patent No. 9,279,413 (the “’413 patent”) is directed to the positioning of wind turbine bearings, specifically a wind turbine having “at least one bearing substantially supporting the weight of rotating parts of the wind turbine” “as close to the centre of mass of the rotating parts as possible” to reduce “static and dynamic bending moments exerted on the at least one bearing . . . .” ’413 patent 2:17-22. Figure 5 of the ’413 patent (below with color annotations) is a cross-sectional view of a wind turbine in which one of the bearings **113** is located in the interior **105** of the rotor hub **102**. *See id.* at 8:8-21.



Claim 1 of the ’413 patent claims a rotor hub for a wind turbine (Figure 5, element **102**), comprising: (1) “a hollow shell” **104** “defining an interior [105]”; and (2) “an annular member” (element **117**) that is an “integral part of or connectable to a bearing” such as one of the bearings depicted at **113** and **121**, wherein (3) “the rotor hub [102] is adapted to be connected to a plurality of rotor blades”; (4) “the bearing [113 or 121] is adapted to rotatably mount the rotor hub [102] to a stationary main shaft” (element **111**), (5) “the annular member [117] protrudes

inwards into the interior [105] of the rotor hub [102]”; and “the annular member [117] extends axially inwards into the interior [105] from a side of the hollow shell [104] configured to face, when the wind turbine is assembled, the stationary main shaft [111] of the wind turbine.” *Id.* claim 1, 8:8-38.

## II. CLAIM CONSTRUCTION PRINCIPLES

Disputes concerning the scope of patent claims are questions of law for the Court. *See O2 Micro*, 521 F.3d at 1360. The words of a patent claim are generally given “the meaning that the term would have to a person of ordinary skill in the art in question,” who “is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). Patent claims “must be read in view of the specification, of which they are a part.” *Id.* at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). “The specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* “Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent.” *Id.* at 1317. Likewise, “statements made before a foreign patent office” in prosecution of a related patent are considered for purposes of claim construction, “if they are relevant and not related to unique aspects of foreign patent law.” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1312 (Fed. Cir. 2014) (overruled on other grounds by *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015)).

## III. TERMS TO BE CONSTRUED

### A. The '776 Patent

#### i. “a circular inner base structure” (Claim 1)

<b><u>Plaintiff's Construction</u></b>	<b><u>GE's Construction</u></b>
Plain and ordinary meaning.	"a rigid structure in the shape of a circle that provides base support for the plurality of connection structures, the circular outer base structure, and the stator coils"

All of the '776 patent claims require a stator with "a circular inner base structure." The parties dispute whether the structure described in this claim limitation must: (1) be in the shape of a circle; (2) be rigid, and (3) provide base support for the connection structures, the circular outer base structure, and the stator coils.

GE's construction follows directly from the claim language and the specification. First, the "circular inner base structure" must be in the shape of a circle. That is, of course, what "circular" means. *See, e.g.,* Ex. 1, *Circular*, Merriam-Webster's Collegiate Dictionary, (11th ed. 2011) ("having the form of a circle"). Each example of a "circular inner base structure" in the specification thus unsurprisingly describes or illustrates a structure in the shape of a circle. For example, the preferred embodiment depicted in Figure 2 of the '776 patent shows what the patent describes as "a base structure which is formed as a circular ring." '776 patent 2:49-50; *see also, e.g., id.* Figs. 1, 2, & 3. Further, the claims distinguish between the "circular inner base structure" itself and a series of separate structures that "are mounted with a circular shape" on that base structure. *Id.* at claim 1, 1:52-54. As such, a skilled artisan would appreciate that the "circular inner base structure" is formed in the shape of a circle, rather than merely a set of non-circular pieces that are "arranged circumferentially" or "mounted with a circular shape." Ex. 2, Slocum Decl. ¶39.

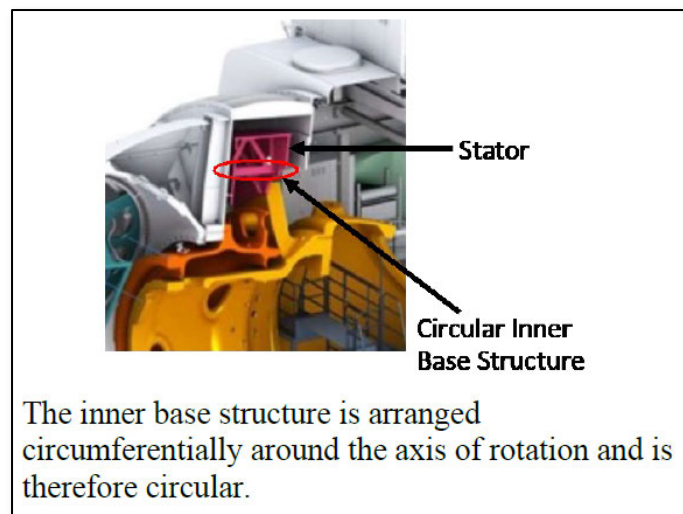
Second, the specification makes clear that the inner base structure must be rigid. That is, in fact, exactly what the specification says: "it is important that the stator support structure is very rigid." *Id.* 1:30-31. According to the specification, the stator's base structure is key to

providing the support structure its stability. *See, e.g., id.* 1:50-52 (“The stator support structure of the inventive wind turbine with a generator comprises a base structure which renders the base structure particularly stable.”), 1:49-50 (“the stator support structure consists of said components...which calm a very rigid and stable stator support structure”), 1:57 (“[t]he stator support structure is very rigid”). And the patent makes clear using the language “the present invention” that a “rigid” structure is required. *Id.* 1:36-39 (“It is therefore an object of the present invention to provide a wind turbine with a generator with a rigid stator support structure.”). *See, e.g., Pacing Techs. LLC v. Garmin Int’l, Inc.*, 778 F.3d 1021, 1024 (Fed. Cir. 2015) (“We have found disavowal or disclaimer based on clear and unmistakable statements by the patentee that limit the claims, such as ‘the present invention includes . . . .’”).

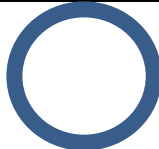
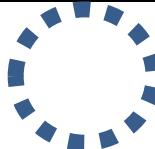
Third, the “circular inner base structure” must provide base support for the claimed plurality of connection structures, the circular outer base structure, and the stator coils. The specification emphasizes that the connection structures are mounted to the base structure. *See* ’776 patent 1:40-43 (“the stator support structure comprises a base structure on which circular connection structures are mounted with their inner perimeter”), 1:52-53 (“On the base structure connection structures are mounted . . . .”), 1:59-61 (“The base structure of the inventive wind turbine may comprise radially protruding flanges on which the connection structures are mounted.”), 2:53-55 (explaining that Figure 2 depicts a base structure with two inner protruding flanges on which “circular connection structures . . . are mounted”). The specification further makes clear that the base structure must support the connection structures, the circular outer base structure, and the stator coils because the base structure “renders the base structure particularly stable.” *Id.* 1:51-52. In every embodiment, the circular inner base structure is depicted as

providing base support for the plurality of connection structures, the circular outer base structure, and the stator coils. *See, e.g., id.* Figs. 1, 2, & 3.

Contrary to SGRE’s position that the term “circular inner base structure” should be left unconstrued, “the court, not the jury, must resolve” the term’s meaning because there is “an actual dispute regarding the proper scope” of the claim. *O2 Micro*, 521 F.3d at 1360. Here, there is a clear dispute of law for the Court’s resolution given SGRE’s infringement contentions, which apparently take the position that GE’s Haliade-X stator has a “circular inner base structure” because it has inner ribs—structures fundamentally different from those described and claimed in the patent—that are “arranged circumferentially around the axis of rotation,” as shown in the excerpt from SGRE’s Apr. 23, 2021 Infringement Contentions, Ex. 3 at 4:



SGRE contends that this arrangement means that a series of inner ribs—which are each *individual rectangular structures* with internal cut-outs, rather than a *single rigid circular* structure that is similar in shape to the circular outer base structure—are “therefore circular.” *Id.* In other words, SGRE’s position is that a circular configuration of rectangular structures is a “circular inner base structure,” as illustrated below:

“circular inner base structure”	
GE’s position (rigid structure in the shape of a circle)	SGRE’s position (series of structures arranged circumferentially around the axis of rotation)
	

SGRE’s interpretation of “circular inner base structure” is inconsistent with the ’776 patent’s specification, including the patent’s objective of forming a hollow chamber. This Court should accordingly reject SGRE’s position and adopt GE’s construction.

**ii. “connection structures” (Claim 1)**

<b><u>Plaintiff’s Construction</u></b>	<b><u>GE’s Construction</u></b>
Plain and ordinary meaning.	“solid circular connection rings”

All of the ’776 patent claims require a stator with “connection structures.” The parties dispute whether the structures described in this claim limitation must be: (1) circular, and (2) solid rings. Both of these features of the “connection structures” are required by the ’776 patent. This Court should adopt GE’s proposed construction.

First, the connection structures are “circular.” The ’776 patent’s Summary of Invention refers to “connection structures” multiple times, and *always* specifically describes them as “circular.” See ’776 patent 1:35-2:27; see, e.g., *id.* 1:41-43 (“a base structure on which circular connection structures are mounted...”), 1:43-45 (“the circular connection structures”), 1:52-54 (“connection structures are mounted with a circular shape which lie in a radial plane”), 2:8-10 (“the circular connection structures are connected to the base structure and/or the stator base structure”), 2:16-18 (“the circular connection structures . . .”), 2:20-22 (“the circular connection structures and the stator base structure may form a hollow chamber...”).

Further, claim 1 explains that the connection structures are “separated axially and radially extending between the circular inner base structure and the circular outer base structure forming

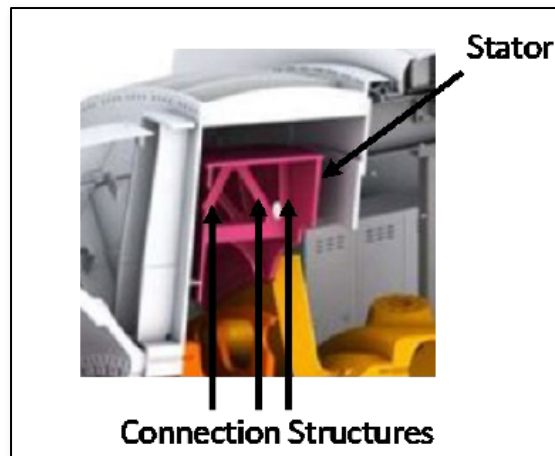
a hollow chamber between the circular inner base structure, outer base structure and the plurality of connection structures,” and are “connected to the circular inner base structure and connected to the circular outer base structure.” It would be apparent to a skilled artisan that the “connection structures” must also be circular so that they can connect to and extend between the circular inner base structure and the circular outer base structure, and so that a hollow chamber would be formed between them, as claim 1 requires. *See* Slocum Decl. ¶43.

Second, the connection structures in the ’776 patent claims must be solid rings. *See* Slocum Decl. ¶44. Every embodiment describes and depicts the connection structures as solid, circular rings. *See* ’776 patent, Figs. 1, 2, & 3; *see also id.* 2:55-56 (“The connection structure[s] are circular rings....”). And a skilled artisan would recognize that solid rings would create the “hollow chamber” described in the ’776 patent by spacing the connection structures apart. *See, e.g., id.* 1:62-67 (“it is preferred” that “the connection structures are spaced apart in a predetermined distance so that a hollow chamber is formed within the stator support structure”). Slocum Decl. ¶45. A skilled artisan would also recognize that a solid circular ring could be bisected to create the “C-shape[]” described in the preferred embodiment in Figure 3. *Id.* 3:20-22; Slocum Decl. ¶46. The rings are indeed solid in part to form the claimed “hollow chamber.”

Moreover, the ’776 patent describes the connection structures as having “a circular shape” and as being “mounted” “on the base structure.” ’776 patent, 1:52-53. The connection structures “lie in a radial plane of the wind turbine.” *Id.* 1:53-54. They “are connected to the circular inner base structure” on their “inner perimeter,” and they are “connected to the circular outer base structure” by their “outer perimeter.” *Id.* claim 1 (“the plurality of connection structures are connected to the circular inner base structure and connected to the circular outer base structure”), 1:41-43 (“the stator support structure comprises a base structure on which

circular connection structures are mounted with their inner perimeter”), 1:54-56 (“On the opposite side of the connection structures, at their outer perimeter, the stator base structure is mounted”), *see also* Figs. 1, 2, & 3. A skilled artisan would recognize the structures described, with their inner and outer perimeters, as solid rings. *See* Slocum Decl. ¶45.

SGRE’s proposal—that the Court decline to interpret the term “connection structures” at all—should be rejected. SGRE’s own infringement contentions identify the Haliade-X stator’s inner ribs (again)—individual rectangular structures with internal cut-outs positioned serially within the interior of the Haliade-X stator—as “connection structures,” even though these are not solid circular connection rings (much less mounted to a circular inner base structure and a circular outer base structure), as shown in the excerpt from SGRE’s infringement contentions:



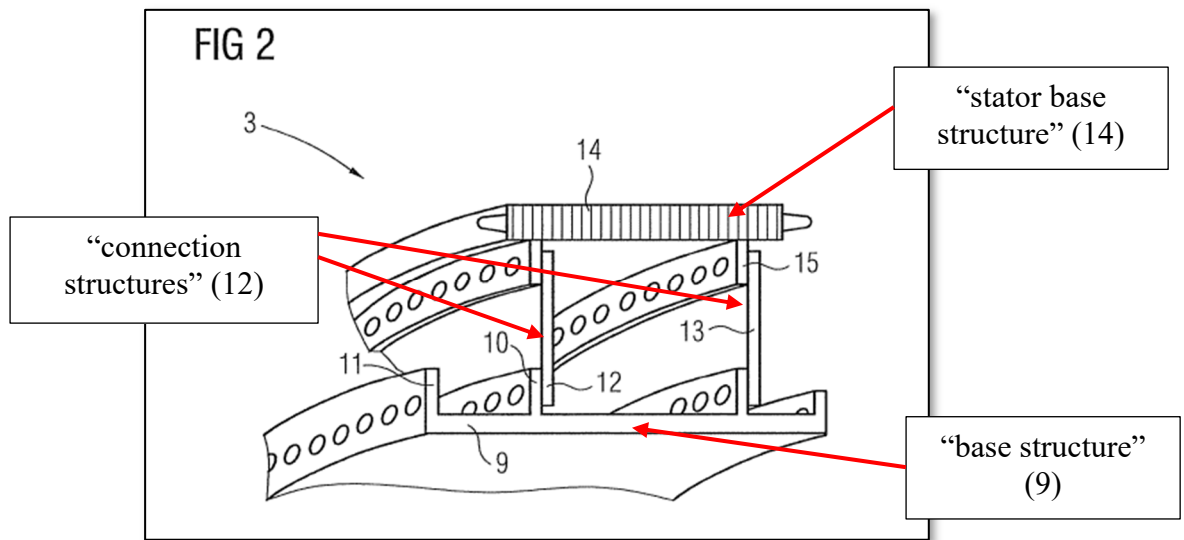
SGRE Infr. Conts., Ex. 3 at 6. Therefore, the parties again have an “actual dispute regarding the proper scope” of the identified term. *O2 Micro*, 521 F.3d at 1360. This court should reject SGRE’s request that the dispute go unresolved.

**iii. “hollow chamber” (Claim 1)**

<b><u>Plaintiff’s Construction</u></b>	<b><u>GE’s Construction</u></b>
Plain and ordinary meaning.	“enclosed empty space”

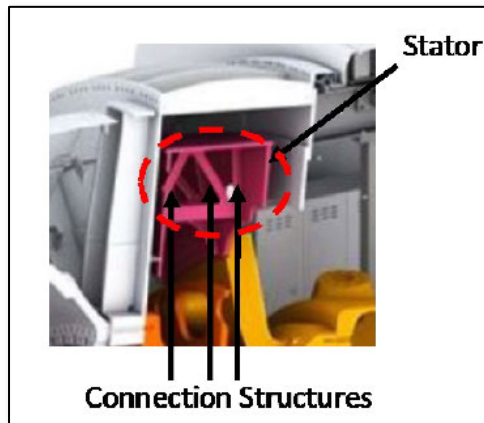
All of the '776 patent claims require a stator with a “hollow chamber.” The parties dispute whether the structures described in this claim limitation must be: (1) enclosed, and (2) an empty space. Both of these features of the “hollow chamber” are likewise supported by the '776 patent specification. The Court should adopt GE’s construction, which includes these features.

The definition of “hollow” is “an unfilled space,” and the definition of a “chamber” is “a natural or artificial enclosed space or cavity.” *See Hollow and Chamber*, Merriam Webster’s Collegiate Dictionary (11<sup>th</sup> ed. 2011). These definitions are consistent with the '776 patent’s specification and claims, which disclose that a hollow chamber is formed within the stator support structure.” ’776 patent 1:646-67; *see also id.* at 4:2-5. This “hollow chamber” is further illustrated in Figure 2 (below), which demonstrates that an enclosed empty space is formed with the solid circular stator base structure on top [14], the solid circular connection structures on each side [12] and [13], and the solid circular base structure at the bottom [9]. Figure 2 represents a cross-section of the structure, and the “hollow chamber” is closed on all sides.



'776 patent, Fig. 2 (annotated to show the parts referenced above).

SGRE’s proposal that the Court decline to interpret the term “hollow chamber” should be rejected. The structure in GE’s accused Haliade-X wind turbines that SGRE identifies as the supposed “hollow chamber”—which is circled in red by SGRE in the excerpt below—is neither “hollow” nor a “chamber”; it is not hollow because it contains, among other things, inner ribs. And it is not a chamber because it is not enclosed; indeed, among other things, it has no inner base. The meaning of “hollow chamber” should not be left to the jury; it is clear that the parties have a dispute about this term requiring the Court’s construction. *See O2 Micro*, 512 F.3d at 1360.



SGRE’s Infr. Conts., Ex. 3 at 7-8.

GE’s proposed construction follows directly from the ’776 patent’s claim language and specification; the Court should adopt it.

## **B. The ’413 Patent**

### **i. “an annular member” (Claim 1)**

<b><u>Plaintiff’s Construction</u></b>	<b><u>GE’s Construction</u></b>
Plain and ordinary meaning.	“a part of the rotor hub contained within the hollow shell”

Independent claim 1 and dependent claims 2-4 of the ’413 patent require a rotor hub with an “annular member.” The parties dispute whether the structures described in this claim

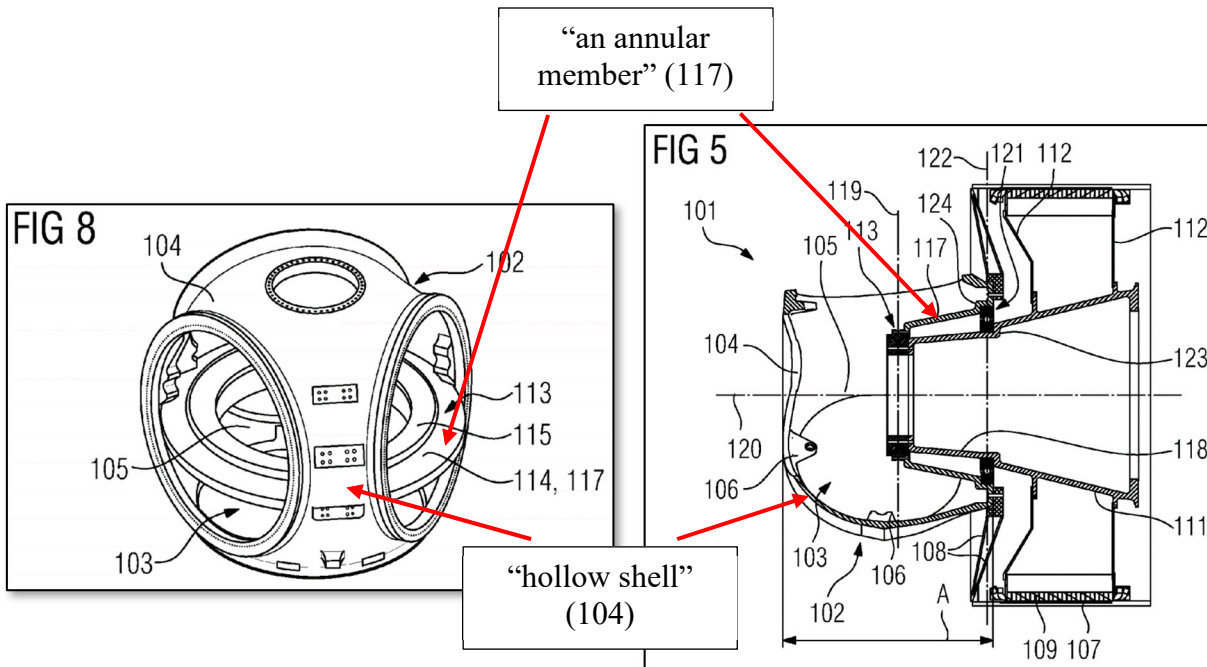
limitation must be both (1) “part of the rotor hub” and (2) “contained within the hollow shell” of the claims. Both of these features of an “annular member” are required by the ’413 patent claims and specification. The Court should thus adopt GE’s proposed construction, which includes these features.

First, the structure of the claims themselves indicate that the “annular member” must be part of the rotor hub. As the parties have agreed, the preamble of claim 1 limits the scope of the claim. *See* Joint Claim Construction Statement (June 11, 2021) at 1:

The parties agree that the preambles of claims 1 and 8 of U.S. Patent No. 9,279,413 (‘A rotor hub for a wind turbine, comprising’ and ‘A wind turbine, comprising’) are limiting.

Dkt. No. 79. Thus, claim 1 requires a “rotor hub,” and that rotor hub must “comprise” “an annular member.” In other words, “an annular member” must necessarily be part of the claimed “rotor hub.”

The claims’ requirement that the annular member be part of the rotor hub is also fully consistent with the specification. All figures depicting the annular member show that it is directly connected to the hollow shell (another part of the rotor hub). *See, e.g.*, ’413 patent, Figures 3-6 and 8-12 (hollow shell 104 or casted hub parts 103 attached to annular member 117). Figures 5 and 8 of the ’413 patent (below) are illustrative:



'413 patent, Figs. 5, 8 (annotated to show "hollow shell" and an "annular member").

Conversely, there are no examples in the specification in which the annular member is *not* part of the rotor hub.

Second, the "an annular member" must be "contained within the hollow shell" to be consistent with the claims and specification. Claim 1 requires that the annular member "protrudes inwards into the interior of the rotor hub." Earlier in the claim, "the interior of the rotor hub" was defined by the hollow shell: "a ***hollow shell*** defining an interior." Thus, to protrude "inwards into the interior of the rotor hub," where the "interior" is defined by the "hollow shell," the "annular member" must be contained within the hollow shell. Moreover, the claims also recite that the "annular member" extend "from a side of the" hollow shell itself. '413 patent, claim 1. For the claimed annular member to both: (1) protrude inwards into the hollow shell; and (2) extend from a side of the hollow shell itself, it must necessarily be contained within the hollow shell. If a portion of the annular member were somehow located *outside* the hollow

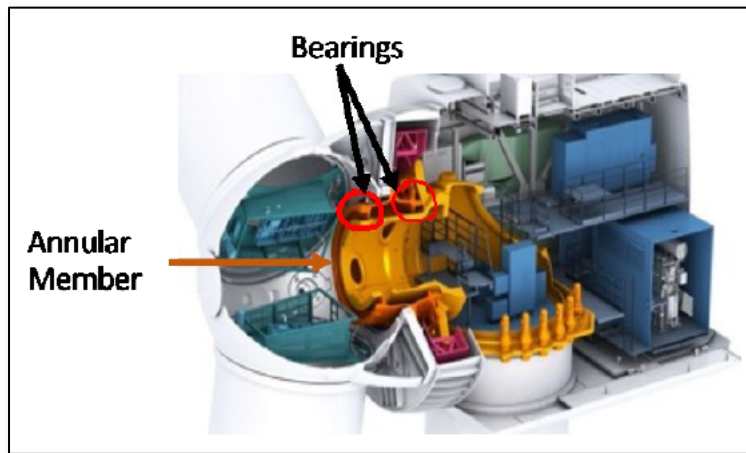
shell, the member could not extend “from” a side of the hollow shell into the interior while “protrud[ing] inwards” into the hollow shell.

The structure of the claim is consistent with the specification, which makes clear that, “[w]hen the wind turbine is assembled, the bearing is attached to the annular member *and thus located within the interior* of the rotor hub close to the centre of mass of the rotating parts.”

’413 patent 5:23-25. The specification says that a bearing is located within the interior *because* it is attached to the annular member; this only makes sense if the annular member is “contained within the hollow shell,” as GE’s proposed construction would require.

GE’s proposed construction is further confirmed by SGRE’s own statements made to the European Patent Office during the prosecution of the European patent application to which the ’413 patent claims foreign priority. *See Apple*, 757 F.3d at 1312 (explaining relevance of statements in prosecution of foreign counterparts). There, in response to the European examiner’s claim rejections, SGRE emphasized that the “distinguishing features” of its invention—that is, having at least one bearing “*integral with* an annular member of a rotor hub”—allowed for “a highly mechanical stable connection between the at least one bearing and the rotor hub *due to the integral structure* of the outer ring of the bearing and *the annular member of the rotor hub*.” Ex. 4, April 4, 2014 Response to European Patent Office Action at 3. According to SGRE, these “distinguishing features” differed from the “conventional way” of connecting a bearing with a rotor hub via “a bolted connection.” *Id.* It follows, then, that the claimed “annular member” must be part “*of the rotor hub*” to achieve the alleged advantage of the invention. If it were not, and instead the annular member was a separate feature connected to the rotor hub in the “conventional way,” then it would not be a “distinguishing feature” over the prior art, as SGRE explained to the European Patent Office.

SGRE’s proposal that the Court decline to interpret the term “an annular member” should be rejected. The structure in GE’s accused Haliade-X wind turbines that SGRE identifies in its infringement contentions as the supposed “annular member” of the claims, shown in the excerpt below, is neither “part of the rotor hub” nor is it “contained within the hollow shell”—thus making clear that the parties have a dispute about this term requiring the Court’s construction. *See O2 Micro*, 512 F.3d at 1360.



SGRE’s Infr. Conts., Ex. 3 at 2. GE’s proposed construction follows directly from the claim language, the specification, and the patent owner’s statements to the European Patent Office.

**ii. “rotor hub” (Claim 8)**

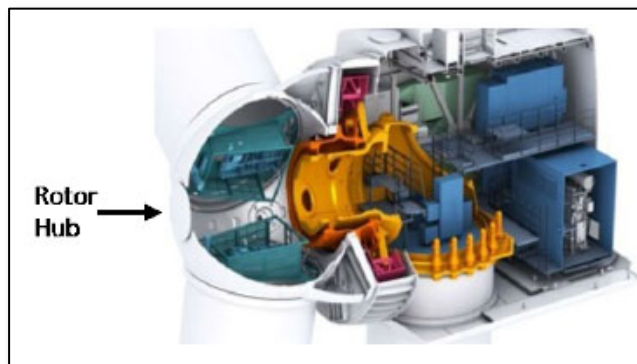
<b><u>Plaintiff’s Construction</u></b>	<b><u>GE’s Construction</u></b>
Plain and ordinary meaning.	“rotor hub having an annular member”

Claim 8 and dependent claims 9-13 of the ’413 patent requires a wind turbine with a “rotor hub.” The parties dispute whether the structures described in this claim limitation must include an annular member.

The words “an annular member” admittedly do not appear in claim 8. But the claim nonetheless requires an annular member because claim 9, which depends from claim 8, specifically refers to “*the* annular member.” Where a claim uses the word “the” to refer to an

element, it is presumed to refer to a prior instance of that same element earlier in the claim. *See Harris Corp. v. Federal. Exp. Corp.*, 502 F. App'x 957, 963 (Fed. Cir. 2013) (nonprecedential) (noting that reference to “the” data “begs for some antecedent basis”). Thus, because claim 9 recites “the annular member,” the rotor hub defined in claim 8 must have “*an* annular member.” If the rotor hub of claim 8 lacks an annular member, then the language “the annular member” would have no antecedent basis. Claim 9 can only avoid indefiniteness if the antecedent basis for “the annular member” is express or implied in claim 8. *See Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 13770-71 (Fed. Cir. 2006) (holding that “‘anode gel’ is by implication the antecedent basis for ‘said zincode’”). In the context of claim 9, the most reasonable interpretation of claim 8 is that the rotor hub—just like the rotor hub of claim 1—includes an annular member.

SGRE’s proposal that this court decline to interpret the term “rotor hub” should be rejected. As shown in the excerpt below, the structure in GE’s accused Haliade-X wind turbines that SGRE identifies in its infringement contentions as the supposed “rotor hub” of claim 8 does not include an annular member, making manifest that the parties have a dispute about this term requiring the Court’s construction. *See O2 Micro*, 512 F.3d at 1360.



SGRE’s Infr. Conts., Ex. 3 at 1. GE’s proposed construction follows directly from the ’413 patent’s claim language.

### III. INDEFINITE TERMS

“[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus*, 572 U.S. at 901 (2014); *see also Infinity Computer Prod., Inc. v. Oki Data Americas, Inc.*, 987 F.3d 1053, 1059 (Fed. Cir. 2021). As recently noted by the Federal Circuit, this standard strikes the “delicate balance” of accounting for both “the inherent limitations of language” and the need to “afford clear notice of what is claimed, thereby apprising the public of what is still open to them.” *Infinity Computer Prod.*, 987 F.3d 1059 (citing *Nautilus, Inc.*, 572 U.S. at 901).

#### A. The '413 Patent

##### i. The “Bearing” Terms

##### 1. “at least two bearings” / “the two bearings” / “the at least two bearings” (Claim 8)

<u>Plaintiff's Construction</u>	<u>GE's Position</u>
Plain and ordinary meaning.	Indefinite under § 112.  Otherwise, “at least two bearings in addition to ‘the bearing’ recited in the claim, for a total of at least three bearings”

The terms “at least two bearings,” “the two bearings,” and “the at least two bearings” recited in claim 8 render claims 8 through 13 indefinite because a person of ordinary skill in the art cannot determine their scope “with reasonable certainty.” *Nautilus*, 572 U.S. at 901. Here are the “bearing” terms in the context of the claims:

wherein the rotor hub is rotatably mounted to the stationary main shaft via *a bearing*, and wherein *the bearing* is arranged within the interior of the rotor hub and connected to a section of the stationary main shaft protruding into the interior of the rotor hub;  
 wherein the rotor hub is rotatably mounted to the stationary main shaft via *at least two bearings*;  
 wherein at least one of *the two bearings* is located in the interior of the rotor hub;

wherein one of *the at least two bearings* is configured to support at least an axial load; and the other of *the at least two bearings* is configured to support at least a radial load.

First, the terms “a bearing” and “at least two bearings” render claims 8 through 13 indefinite because a person of ordinary skill in the art cannot tell how many bearings are required for the claims. Is the “a bearing” one of the “at least two bearings,” or is it a third bearing? The claim then makes this confusion worse, because it requires that the “rotor hub [be] rotatably mounted to the stationary main shaft via” “the bearing” *and* one of the “at least two bearings.” Does that require mounting by one bearing or two?

The specification provides no clarity on this one way or the other. There is no guidance whatsoever on how many bearings the invention actually requires. And Kim Thomsen, one of the alleged inventors of the ’413 patent, acknowledged that he was working on some projects at SGRE that involved two bearings, and others that involved three. Ex. 5, Thomsen Tr. 31:23-25 (“I have worked with main bearing systems with one bearing and systems with two bearings.”), 32:6-7 (“I have worked on a development project using three bearings.”). Given the odd way claim 8 is structured, it is impossible to understand “with reasonable certainty,” whether two or three bearings are required. *Nautilus*, 572 U.S. at 901; *see also* Slocum Decl. ¶¶58-59. Claim 8 and the claims that depend from it are therefore invalid.

The claims are also indefinite for a second, independent reason related to the “bearing” elements: the term “the two bearings” lacks antecedent basis in claim 8, rendering the claim indefinite. *See Slimfold Mfg. Co. v. Kinkead Indus., Inc.* 810 F.2d 1113, 1116 (Fed. Cir. 1987) (explaining indefiniteness for “lack of antecedent basis”). Claim 8 discloses “a bearing” and “at least two bearings”—and it is not clear whether “the two bearings” refer back to the “a bearing” plus some other, two of the “at least two bearings,” or yet another separate undefined set of “two bearings.”

At minimum, to the extent that the Court concludes that “at least two bearings” and “the bearing” are not indefinite, then “at least two bearings” should be construed as “at least two bearings in addition to ‘the bearing’ recited in the claim, for a total of at least three bearings.” To allow the claim to require any fewer than three bearings would render superfluous the claim limitation “wherein the rotor hub is rotatably mounted to the stationary main shaft via a bearing.” *See Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1399 (Fed. Cir. 2014) (favoring a construction that does not render another limitation “superfluous”).

## 2. “the bearing” (Claim 8-10, 12, and 13)

<u>Plaintiff’s Construction</u>	<u>GE’s Position</u>
Plain and ordinary meaning.	Indefinite under § 112.  Otherwise, the antecedent basis for “the bearing” is “a bearing”

The term “the bearing” recited in claims 8 through 10, 12, and 13 also renders claims 8 through 13 indefinite, because a person of ordinary skill in the art again cannot determine its scope “with reasonable certainty.” *Nautilus*, 572 U.S. at 901. First, the term “the bearing” renders claims 8 through 13 indefinite at least because a person of skill could only speculate whether “the bearing” refers to “a bearing” or one of the “at least two bearings” in claim 8. The specification does not provide details about an embodiment that combines “the bearing” with “a bearing” and “at least two bearings,” as claimed. *See Slocum Decl.* ¶60.

The indefiniteness of claim 8 due to “the bearing” lacking antecedent basis is compounded in claims 9, 10, 12, and 13. For example, in claim 9, a person of ordinary skill in the art has no way to know whether one of the “at least two bearings”—or some other bearing—must be “the bearing” that meets the claim’s requirement to have an outer ring and an inner ring. Claims 10, 12, and 13 raise similar concerns.

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Respectfully submitted,

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